

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 02846T1-6/45	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 03/14579	International filing date (day/month/year) 18.12.2003	Priority date (day/month/year) 18.12.2002
International Patent Classification (IPC) or both national classification and IPC B64G1/64		
Applicant INTERSECURE LOGIC LIMITED ET AL		

<p>1. This International preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 1 sheets.</p>
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the opinion II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and Industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 12.07.2004	Date of completion of this report 18.03.2005
Name and mailing address of the International preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Calvo De No, R Telephone No. +31 70 340-3113 

INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

International application No. PCT/EP 03/14579

I. Basis of the report

1. With regard to the elements of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-48 as originally filed

Claims, Numbers

1-16 as originally filed
17 received on 06.10.2004 with letter of 04.10.2004

Drawings, Sheets

1/10-10/10 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

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5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).
(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2,5-9,13,14
	No: Claims	1,3-4,10-12,15-17
Inventive step (IS)	Yes: Claims	5-8
	No: Claims	1-4,9-17
Industrial applicability (IA)	Yes: Claims	1-17
	No: Claims	

2. Citations and explanations

see separate sheet

**INTERNATIONAL PRELIMINARY
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Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

D1: US 2002/179775 A1 (TURNER ANDREW E) 5 December 2002 (2002-12-05)
D3: US-B-6 296 2051 (FLEETER RICHARD D ET AL) 2 October 2001 (2001-10-02)

In particular, in relation to the key feature of communicating from the ground station to the service vehicle via the target satellite, attention is drawn to the following passage from D3 (col. 7, lines 1-10):

"The operator is presented as being associated with the *ground station* 160 that controls the inspection satellite 150, although the diagnosis operator could be an independent entity.[...] Also, *the communication from the inspector satellite 150 to the operator terminal 288 may be indirect, via, for example, other satellites, including the target satellite 110*, and via conventional store and forward communication techniques."

2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-4,10-12 and 15-17 is not new in the sense of Article 33(2) PCT.
- 2.1 The document D3 discloses (the references in parentheses applying to this document):

Service vehicle (150) for performing in-space operations (monitoring and inspection) on a selected target spacecraft (110), comprising a communication module (260) which with respect to its receiving characteristics is configurable (see col. 3, l. 53-65) in order to meet given transmitter parameters of said selected target spacecraft (110).

Independent claim 1 is therefore not new in the sense of Art. 33(2) PCT.

2.2 The document D3 also discloses a method for in-space servicing of a selected spacecraft, wherein the service vehicle (150) according to claim 1 is used to perform selected in-space operations (inspection) on said target spacecraft (110), and wherein telemetry and telecommand channels between a ground control module (160) and said target spacecraft (110) are used to relay command signals to said service vehicle (160, see col. 7, l. 1-10: "Also, the communication from the inspector satellite 150 to the operator terminal 288 may be indirect via, for example, other satellites, including the target satellite 110"). Method claims 16 and 17 are therefore not new in the sense of Art. 33(2) PCT.

2.3 Dependent claims 2-4 and 9-15 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, see documents D3, D1 and the corresponding passages cited in the search report.

3. The combination of the features of dependent claim 5 is neither known from, nor rendered obvious by, the available prior art. The reasons are as follows:

3.1 Although the service vehicle of D3 does include a control module for the configurable communication module, it is not explicitly disclosed as being suitable for providing a setpoint for an output power. This feature appears to be aimed to solving the problem of selecting the communication range so as to communicate with one of several possible target spacecraft. Since in the available prior art this feature has not been proposed for solving this problem, it would not have been obvious for the skilled person to apply it to the service vehicle of D3.

New claim 17 for PCT/EP 03/14579

17. Method for in-space servicing of a selected target space-craft (2), wherein a service vehicle (6) according to one of the claims 1 through 10 is used to perform selected in-space operations on said target spacecraft (2), and wherein a telecommand channel between a ground control module (12) and said target spacecraft (2) is used to relay command signals to said service vehicle (6).